

## Vision assessment in regional Indian languages

India is a very diverse country with significant differences in culture, geography, and environment. These differences are typified by the different languages spoken in different regions of India. As per the census of 2011, there are 22 official languages spoken in India, but there are more than 100 languages and more than 500 different dialects spoken all over India.<sup>[1]</sup> People are most comfortable when they converse in their native language. This is true even in major metro cities where people from all states of India coexist in harmony. In addition, majority of the Indians are educated in regional languages and are hence comfortable reading in their own language. These preferences have been recognized for centuries, and vast bodies of literature have evolved in most of the regional languages. Currently, news is disseminated in local languages, regional channels on television cater to such needs for entertainment, and social media is also proliferating by allowing typing in the regional scripts. These societal adaptations show that there is an increasing demand for communicating in the regional languages. Then, why do we not have standardized visual acuity testing charts in regional languages?

In India, there is a high burden of cataract and other forms of avoidable blindness.<sup>[2]</sup> A good strategy is to conduct outreach camps to identify patients with significant cataract and other forms of eye disease who require intervention. However, it's imperative that vision is checked even at the campsite before making clinical decisions. Even in hospitals, patients may be more comfortable if reading in their language rather than English optotypes. Some Snellen's charts are available in regional languages, but standard logarithm of minimum angle of resolution (logMAR) charts are not readily available. These charts are a much better way of recording visual acuity and are the mainstay for clinical research studies because of this. Development of logMAR charts in regional Indian languages is the need of the hour, not only to record vision but to also enable greater recruitment into clinical research, which is gaining a lot of traction in Indian ophthalmology. In this issue of the Indian Journal of Ophthalmology, there are three excellent papers that evaluate vision testing charts in various regional Indian languages. Sailoganathan *et al.* present a new Hindi visual acuity chart based on equal letter legibility and logMAR chart design features.<sup>[3]</sup> Authors use sound study design and statistical analysis to show that the new logMAR visual acuity chart is a valid and highly repeatable way of measuring visual acuity. Similarly, Negiloni *et al.* present new logMAR visual acuity charts in seven Indian languages – Hindi, Bengali, Telugu, Urdu, Kannada, Malayalam, and Assamese.<sup>[4]</sup> Authors present rigorous methodology in choosing the font style, size, and difficulty levels for the optotypes in these visual acuity charts and their efforts are to be applauded. After such exhaustive planning in designing these charts, it is hardly surprising that authors found that visual acuity measured using these seven new charts was very close to vision measured using the Early Treatment Diabetic Retinopathy Study English chart. Finally, in another paper in the current issue, Srinivasan *et al.* present a new near vision chart to measure the rate of reading in Kannada.<sup>[5]</sup> Authors based the new test on the well-established design principles of the Wilkins Rate of Reading Test and recruited school-going children to measure their rate of reading. They concluded that the new chart was a valid and reliable tool for measure the reading speeds in Kannada.

With the availability of well-designed logMAR charts in so many different languages, it is hoped that more and more ophthalmic hospitals will adopt these charts in their clinical and research settings. Adoption of these new charts in outreach camp settings may increase the connect between camp organizers and the local population and woo more attendance in camps, thus allowing more detection of patients with vision-threatening pathologies.

In conclusion, India epitomizes unity in diversity, and it is high time that we gave greater importance to our regional languages for vision testing.

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## References

1. Linguistic Survey of India. Available from: [http://www.censusindia.gov.in/2011-documents/lsi/ling\\_survey\\_india.html](http://www.censusindia.gov.in/2011-documents/lsi/ling_survey_india.html). [Last accessed on 2018 Apr 14].
2. Honavar SG. Eliminating cataract blindness: Are we on target? Indian J Ophthalmol 2017;65:1271-2.
3. Sailoganathan A, Osuobeni EP, Siderov J. A standardized logarithm of the minimum angle of resolution visual acuity chart in Hindi. Indian J Ophthalmol 2018;66:634-40.

4. Negiloni K, Mazumdar D, Neog A, Das B, Medhi J, Choudhury M, *et al.* Construction and validation of logMAR visual acuity charts in seven Indian languages. Indian J Ophthalmol 2018;66:641-6.
5. Srinivasan K, Krishnan G, Wilkins A, Allen P. Reliability and validity of a Kannada rate of reading test. Indian J Ophthalmol 2018;66:630-3.

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### About the author



Dr. Sabyasachi Sengupta is a practicing vitreoretinal surgeon in Mumbai. He completed a research – cum – clinical fellowship from the prestigious Sankara Nethralaya and pursued a research fellowship at Wilmer eye institute, Johns Hopkins University, USA. He was awarded the Mc Cartney prize by the Royal College of Ophthalmologist's in London in January 2010 and had the distinction of being the first ever non-British national to receive this award. He was the recipient of Dr. G. Venkataswamy Gold Medal in DNB Ophthalmology examination held in December 2009. He was the head of research at Aravind Eye Hospital, Puducherry in his immediate past. He has published 71 papers and is the current Associate Editor of the Indian journal of Ophthalmology. He is the founder of Sengupta's research academy, a one of its kind portal offering E-learning lectures on research methodology and services for manuscript preparation.